UNITED STATES OF AMERICA

Before the
FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In The Matter Of:	)	
Localism Task Force	)	Docket No. RM-10803

JOINT WRITTEN COMMENTS OF THE LOW POWER AM TEAM,
AN AFFILIATE OF THE AMHERST ALLIANCE,
REGARDING THE BAUMGARTNER PETITION FOR RULEMAKING
TO ESTABLISH A LOW POWER AM (LPAM) RADIO SERVICE

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Identification of Commenter

This document has been produced by the Low Power AM Team, an affiliate of the Amherst Alliance formed to draft comments on the Baumgartner Low Power AM petition filed to the FCC in the RM-10803 Localism Task Force Procedure. This statement represents a super-majority (2/3) or higher level of acceptance from the affiliation, which is composed of technical experts and broadcasters with exceptional insight on the topic of Low Power AM Broadcasting. Most, but not all members of the group are also members of the Amherst Alliance.

The Amherst Alliance is a net-based, nationwide citizens' group that advocates for competition and localism in broadcasting, and is currently coordinated by Don Schellhardt. Don is a writer and attorney with 28 years of Government Relations experience, including 9 years as a government employee (in the Legislative, Executive and Judicial Branches, at both the State and Federal levels) and 17 years as an advocate before government (again, in all 3 Branches, at both the State and Federal levels). Don Schellhardt is now in solo practice as a lawyer/lobbyist and speechwriter.

The Low Power AM Team is headed by Kyle Drake, who is an engineer currently doing research on the topic of Low Power AM (hereby referred to as LPAM) Broadcasting. He is currently working on a degree in electrical engineering and computer science, and has filed comments/petitions with the FCC before, including a petition for a new public broadcast band (ala the Citizens Broadcast Band Discussion Group) and a comment in the 99-325 digital radio docket warning of potential skywave interference resulting from the poor engineering of the IBOC-AM digital radio system.

Statement of Support

Recently, a petition was filed in the RM-10803 docket asking for the establishment of a Low Power AM licensing service. The LPAM Team and the Amherst Alliance, including untold millions of citizens and communities across the country, strongly favor the introduction of more local, community-based broadcasting. We believe that the Baumgartner LPAM petition is an extremely conservative and painless way to enhance media localism significantly, and even if it *were* to cause frequent interference problems (which it won't, according to the rigors of science), its ability to create local, community-driven broadcasting would still greatly outweigh the disadvantages.

Over the last 10 years, the FCC has shown a blind eye to AM broadcasting in general, most notably by not giving away licenses. This, mixed with the perceived quality limitations by many broadcast companies has led to a fairly large opening of the band in many areas. Even with the very conservative proposal by Mr. Baumgartner, research by the LPAM team (most notably Rich Eyre of REC Networks) has shown that thousands of potential LPAM licenses are available in almost all areas of the country, and a more liberal application (modeled with even higher power levels) shows almost similar availability. From both a social and technical standpoint, LPAM is an extremely good idea, and has the potential to not only introduce more community-oriented and public broadcasting, but also to create competitive business and bring new jobs into the radio market.

Specific concerns with the Baumgartner Petition

There are some problems in the petition that we are concerned about.

1. Loading Coils

In the petition, it calls for a ban on Loading Coils. We disagree with this from a technical point. Because a later part of the petition allows for antenna tuners, we think this might just be a mix-up of words, but it is important to clarify this.

A loading coil is required to make an antenna lower than ¼ wavelength (such as the ones proposed in the petition) work properly with a 50-ohm AM transmitter. Loading coils actually act as antenna tuners by "matching" the impedance of the antenna with the impedance of the transmitter. It is imperative that loading coils be allowed, otherwise the antennas will not function properly.

2. Horizontal Antennas

In the petition, it is suggested that horizontal antennas be allowed. We do not agree with this. Not only do horizontal antennas work poorly for local broadcasting (they create null points in the reception for car radios), but they also can cause skywave interference because they send the majority of their power to the atmosphere. We think it would be in the FCC's better interests to only allow vertical antennas, or a compromise having antennas no closer to horizontal unity than 45-60 degrees (a "sloper" configuration). We

don't anticipate large skywave interference from horizontal antennas at LPAM power levels. However, considering that horizontal antennas are rather ineffective for local broadcasting anyways, we see no reason to risk it.

3. Fencing

In the petition, it is suggested that fencing be required around AM broadcast antennas. We believe that this would be a costly and rather unnecessary step to make for 30 watt stations. With an antenna and the distance of the ground plane combined, these fences could possibly have to be very large. While it is true that high voltages can exist in antennas, they are in the form of RF current, which is not dangerous at LPAM power levels. It can however cause an RF burn, which can be painful (but again isn't dangerous). We suggest that only a sign warning near the antenna be necessary for 30 watt licenses, and the individual broadcaster can choose to put up a fence depending on specific location considerations.

4. On-Air time

The following is an excerpt from the petition:

*The petitioner suggests that licensed LPAM stations should be required to provide no less than 8-hours of service nor permitted to broadcast **more** than 85-hours for each licensed entity, in a given week.*

We believe this to be a typo, because we don't see any reason why more than 85 hours of broadcasting could not be allowed. We believe there should be no limit on the amount of time LPAM stations are on the air.

5. Manned Time Percentage

We believe the requirement for a minimum of 60% live DJ time is too high, and suggest eliminating the requirement. If the FCC wishes, a localism requirement (as with LPFM) could be considered.

Suggestions to Improve the LPAM Service

1. Service Status

We highly recommend that LPAM be changed from a Secondary Service to a Primary Service. As a secondary service, an LPAM station could be forced off the air by a power broadcaster attempting to change frequencies or move locations. Furthermore, companies unwilling to compete could use this ability as a weapon. LPAM stations, especially commercial ones, should be allowed equal protection of their assigned frequencies, and only in the case of a serious conflict or interference problem should their frequency be changed/removed. Also, we believe that "satellators" and other long-distance translation services should be registered as tertiary services, or at least should be considered lower in status than LPAM stations.

2. Ownership Limitation

We don't believe that an LPAM licensee be restricted to ownership of only one license. We don't suggest an unlimited amount, but a cap or 2-6 LPAM licenses per licensee could be considered.

3. Official definition of Low Power AM

LPAM should be formally declared as a service that broadcasts at 5 watts or more, thereby assuring that a licensing requirement is not accidentally created for Part 15 systems.

4. Increased Power Levels

For rural areas, higher power levels than in the Baumgartner petition could be considered. Even a 150 or 200 watt license tier for very rural areas could be considered. We recommend that no power level above 200 watts be considered, to retain the conservative nature of the petition and guarantee the nonexistence of interference.

5. Population level for 100 watt licenses

The Baumgartner petition suggests that 100 watt licenses be assigned only in areas where 20,000 people or less live within a 5 mile radius of the transmitter. From our own

analysis, we have determined that there are enough open frequencies to increase this number somewhat, perhaps even doubling it.

6. Time-Sharing

We suggest that the proposed regulatory pressures for time-sharing of stations be eased somewhat, we believe it to be overburdening on both the broadcasters and the FCC.

7. Capacitance Hats

A Capacitance Hat is a horizontal unit that is placed at the top of an antenna. They don't contribute much to the radiation of the antenna, but can help even out the flow of current in an antenna and are also *theorized* by some engineers to reduce skywave. We suggest that the FCC allow people to use capacitance hats. If a limitation is needed, we suggest that the height of a capacitance hat not exceed 2" (and the height shall add into the total height of the antenna) and that the horizontal element of the hat not exceed 5'. This is not exact, but should give an idea that capacitance hats can indeed be regulated and modeled if the commission wishes to do so.

8. Mileage Seperation Standards

It is suggested that minimum mileage separation standards between LPAM stations and

other LPAM stations are at least considered, as opposed to the current method which considers mileage separation between LPAM and full power stations. It should be noted that no unanimous conclusion was made to this requirement within the LPAM Team. While some on the group felt that not taking this step could lead to interference problems, it is the belief of the head of the group that such standards (while beneficial) are practically over-restrictive, over necessary (can be handled by interference dispute mechanism), and slow down the licensing of stations by adding extra processing work.

It is however unanimously requested that the establishment of a formal FCC framework for resolving any LPAM-to-LPAM interference disputes is developed, incase any problems do arise.

9. Ground Conductivity and Mileage Seperation

The Baumgartner petition assumes ground conductivity of 30. However, in most of the continental United States, the ground conductivity is much less, perhaps 4-8 average. Since the FCC has in its inventory a map of ground conductivity, we raise the possibility that mileage separations could be reduced for areas of lower conductivity.

Conclusion

Though we have suggested many things to change or add to the petition, this should not be taken as rejection of the petition. Beyond the few things we have pointed

out, the idea itself is very technically sound, and we believe it can be implemented in its current form (or even in a more liberalized form) without producing any serious problems or interference concerns. Further, the petition is designed to reduce the load on FCC staffers and to compensate funds for time used in processing, thus creating less of a burden on the federal government and enabling the faster processing time of stations.

We strongly urge the FCC (and the Localism Task Force) to take a serious and thoughtful look at this petition, instead of letting it sit in a docket. Talking and discussion is good, but in the end, the only real way to increase localism in broadcasting (short of unconstitutional strong-arm government tactics) is to actually create more local broadcast stations. We have proven with the rigors of science that we can create an effective and working LPAM system, that does not share the lack-of-availability problems of the LPFM service (mainly due to spectrum crowding by superpower stations) and will surely be a large step forward for American broadcast media.

Respectfully Submitted,

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